NEW YORK STATE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF MATERIALS

METHOD FOR TAKING PAVEMENT AND FOUNDATION CORES

Intent and Purpose

It is the intent of this Materials Method to secure cores of both concrete and bituminous pavements which are fully representative of the in-place conditions of the pavement.

Measurements shall be made on these cores by the District and the Bureau of Materials. In addition, tests shall be made by the Bureau of Materials to determine the physical properties of the cores.

Thickness determinations are for acceptance purposes while information gained by analysis of physical properties will be used as supporting data for District control procedures.

Contracts to be Cored

Cores shall be taken from all bituminous pavements, concrete pavements and composite bituminous pavements built under contract as soon after construction as personnel and equipment scheduling will permit. No cores shall be taken from the following:

(a) Bituminous leveling courses and pavements whose thickness is not definitely specified in the plans or proposal.

(b) Any widening strip of concrete pavement or foundation when the average width of said strip does not exceed

three feet, unless ordered by the District Engineer.

(c) Bridge pavements or decks unless ordered by the Deputy Chief Engineer (Design), Concrete pavement or concrete base bridge approaches which consist of 20,000 sq. ft. or less. For example, a bridge approach 1,000 ft. in length and 20 ft. (2 lanes) wide need not be cored. A bridge approach, however, 1,000 ft. long and 40 ft. wide should be cored. The following minimum number of cores should be taken from bridge approaches, where it is necessary to core the approaches.

1. Two lane approaches, take not less than 2 cores (one from each lane) from each side of the bridge.
2. Three lane approaches, take not less than 3 cores (one from each lane) from each side of the bridge.
3. Four lane approaches, take not less than 4 cores (one from each lane) from each side of the bridge.

Procedure

When a pavement is ready to be cored, the drill operator will be furnished with the following information:

Contract Number

County

Contractor

Pavement Item Number

Specified height in inches

Curing method for concrete pavement

NYSDOT
Library
50 Wolf Road, POD 34
Albany, New York 12232

Producer and job mix formula

Item number for bituminous items

When possible the Engineer-in-charge should be notified at least three days in advance of the coring.

Identification of cores

The top of the core should always be to the left when labeling the core. All identifying numbers shall be written lengthwise along the cores. For any one year, consecutive concrete cores and consecutive bituminous cores taken by each drill shall be numbered in numerical order. Each type of core shall have a separate system of consecutive numbers beginning with the number 1 for the first core taken in the year. All cores shall be identified by the year, District number and core number as shown in Figure 1.

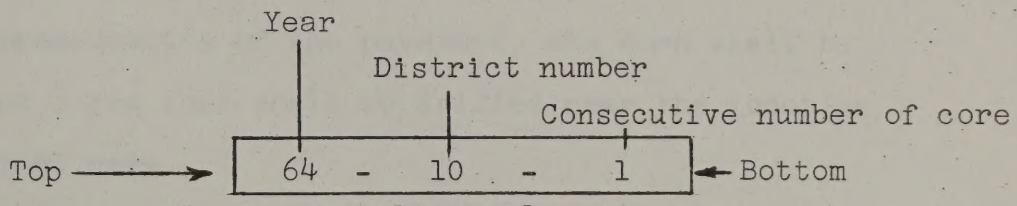

Figure 1

Field Measurements of Cores

Each core shall be measured with a ruler or a core gauge as it is taken from the highway. When using a gauge, all foreign material shall be removed from the core and the core shall be placed top side down in the collar of the gauge. The measuring rod shall be set down on the core and the reading recorded to the nearest 1/8 inch. If the measured core does not meet the specified tolerances for the contract, check cores

must be taken as outlined under Rejection of Pavement & Location of Check Cores.

Pavement Core Record Form BR 166

All field information must be filled in on this form as each core is taken.

Concrete and bituminous cores shall be listed on separate sheets.

Non-Representative Cores

The depth of core drilling shall be such as necessary to obtain a core representative in all respects of the full thickness of all pavement courses.

If, in the judgment of the driller or Engineer-in-charge, the core as extracted is irregular, broken, disturbed or otherwise not representative of the pavement, the core shall be discarded and a new core shall be drilled near the location of the original core.

Filling Core Holes

All core holes will be filled with cold mix bituminous concrete by District forces within the shortest possible period after drilling. This material shall be placed in 2 inch layers and tamped to a high density.

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